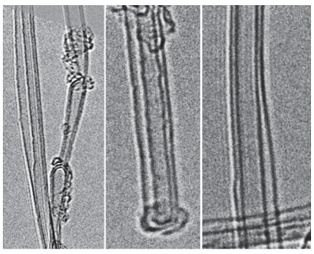
Carbon Nanotubes

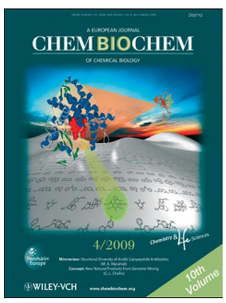
G. Q. Ning, H. Shinohara*

Unsynchronized Diameter Changes of Double-Wall Carbon Nanotubes during Chemical Vapour Deposition Growth

Unsynchronized growing! Unsynchronized diameter changes of the inner and the outer tubes are observed in the double-wall carbon nanotubes (DWNTs) prepared by CoMo/MgO catalysts. The difference of the growth surroundings for the inner and outer tubes of DWNTs can consistently explain the observed unsynchronized diameter changes.



Chem. Asian J.
DOI: **10.1002/asia.200800347**

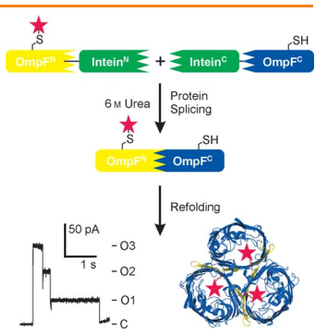


Protein Splicing

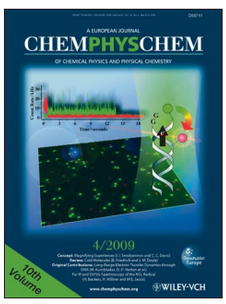
S. Brenzel, M. Cebi, P. Reiß, U. Koert,* H. D. Mootz*

Expanding the Scope of Protein *Trans*-Splicing to Fragment Ligation of an Integral Membrane Protein: Towards Modulation of Porin-Based Ion Channels by Chemical Modification

It's raining, it's porin: Fragment ligation of OmpF ion channels was achieved by using the split *Psp*-GBD Pol intein; this allowed reconstitution of active trimeric porin. In combination with cysteine modification at an internal position, the porin's conductance properties were altered.



ChemBioChem
DOI: **10.1002/cbic.200900039**

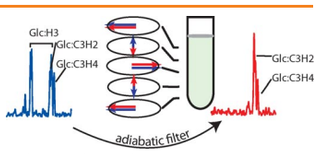


NMR

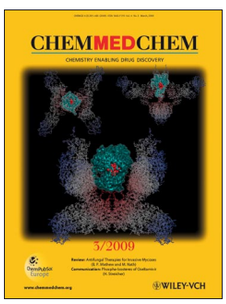
S. Meier, A. J. Benie, J. Ø. Duus, O. W. Sørensen*

Adiabatic Low-Pass J Filters for Artifact Suppression in Heteronuclear NMR

NMR artifact purging: Modern NMR experiments depend on efficient coherence transfer pathways for their sensitivity and on suppression of undesired pathways leading to artifacts for their spectral clarity. A novel robust adiabatic element suppresses hard-to-get-at artifacts (see picture).



ChemPhysChem
DOI: **10.1002/cphc.200900072**

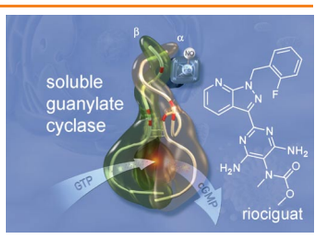


Treating Hypertension

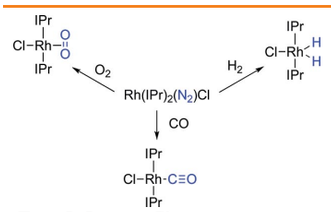
J. Mittendorf,* S. Weigand, C. Alonso-Alija, E. Bischoff, A. Feurer, M. Gerisch, A. Kern, A. Knorr, D. Lang, K. Muenter, M. Radtke, H. Schirok, K.-H. Schlemmer, E. Stahl, A. Straub, F. Wunder, J.-P. Stasch

Discovery of Riociguat (BAY 63-2521): A Potent, Oral Stimulator of Soluble Guanylate Cyclase for the Treatment of Pulmonary Hypertension

Direct stimulation of soluble guanylate cyclase (sGC) represents a promising therapeutic strategy for the treatment of a range of diseases, including the severely disabling pulmonary hypertension (PH). Optimization of the unfavorable DMPK profile of previous sGC stimulators provided riociguat, which is currently being investigated in phase III clinical trials for the oral treatment of PH.



ChemMedChem
DOI: **10.1002/cmdc.200900014**



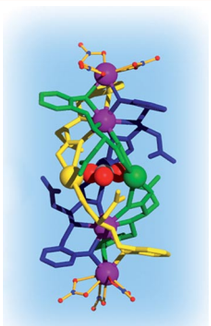
Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.200801191**

Dinitrogen Complexes

J. M. Praetorius, R. Wang, C. M. Crudden*

Structure and Reactivity of Dinitrogen Rhodium Complexes Containing N-Heterocyclic Carbene Ligands

A rhodium N-heterocyclic carbene complex featuring coordination of molecular nitrogen has been synthesized and characterized. The lability of the nitrogen ligand in solution has been exploited to afford various complexes of the formula $[Rh(IPr)_2(XY)Cl]$.



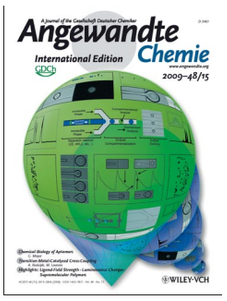
Angew. Chem. Int. Ed.
DOI: **10.1002/anie.200900838**

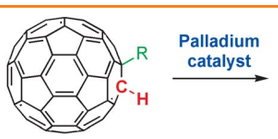
Heptameric Lanthanum Clusters

X.-L. Tang, W.-H. Wang, W. Dou, J. Jiang, W.-S. Liu,* W.-W. Qin, G.-L. Zhang, H.-R. Zhang, K.-B. Yu, L.-M. Zheng

Olive-Shaped Chiral Supramolecules: Simultaneous Self-Assembly of Heptameric Lanthanum Clusters and Carbon Dioxide Fixation

Cluster's last stand: Six chiral reduced Schiff base ligands containing amino acids and seven La^{III} ions self-assemble to form a novel heptameric lanthanum supramolecule with the aid of the CO_3^{2-} ion (see picture). The cluster exists as a single chiral triple helix. The CO_3^{2-} ion, which is derived from atmospheric CO_2, adopts a rare μ_3-tridentate bridging mode that links three La^{III} ions, thus allowing the cluster to efficiently fix CO_2.





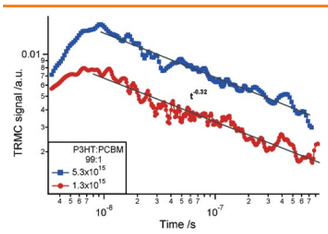
Chem. Eur. J.
DOI: **10.1002/chem.200900022**

Fullerene Functionalization

M. Nambo, K. Itami*

Palladium-Catalyzed Carbon–Carbon Bond Formation and Cleavage of Organo(hydro)fullerenes

Palladium can tailor fullerenes: Palladium catalysts enable a number of C–H bond transformations of organo(hydro)fullerene. In addition to anticipated coupling reactions (C–H bond allylation and arylation), unexpected new C–H bond dimerization reaction and C–C bond-cleavage reaction were also uncovered.



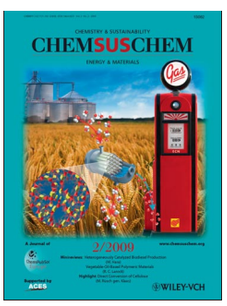
ChemSusChem
DOI: **10.1002/cssc.200900002**

Solar Cells

T. Moehl, V. G. Kytin,* J. Bisquert,* M. Kunst, H. J. Bolink, G. Garcia-Belmonte

Relaxation of Photogenerated Carriers in P3HT:PCBM Organic Blends

Relaxing in the sunlight: Long time-transient decays of photogenerated carriers in P3HT:PCBM blends for organic solar cells are interpreted in terms of the relaxation of hole carriers in a broad density of states.



On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley InterScience.

